Please provide the following information, and submit to the NOAA DM Plan Repository.

Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

1. General Description of Data to be Managed

1.1. Name of the Data, data collection Project, or data-producing Program:

Benthic images collected at coral reef sites in Batangas, Philippines in 2012 and 2015

1.2. Summary description of the data:

Photographs of the seafloor were collected during benthic photo-quadrat surveys conducted by the NOAA Coral Reef Ecosystem Program (CREP) in 2012 and 2015 along transects at fixed climate survey sites located on hard bottom shallow water (< 15 m) habitats in the Philippines. Climate sites were established by CREP to assess multiple features of the coral reef environment (in addition to the data described herein) over time. The photographs can be accessed online via the NOAA National Centers for Environmental Information (NCEI) Ocean Archive. The imagery from 2015 has been quantitatively analyzed using image analysis software to derive an estimate of percent benthic cover (archived separately).

1.3. Is this a one-time data collection, or an ongoing series of measurements? One-time data collection

1.4. Actual or planned temporal coverage of the data:

2015-05-18 to 2015-06-12, 2012-03-12 to 2012-03-16

1.5. Actual or planned geographic coverage of the data:

W: 120.87, E: 120.9, N: 13.728054, S: 13.658594

Five survey locations in the municipalities of Mabini and Tingloy in Batangas, Philippines (near the Verde Island Passage), including Batong Buhay, Koala Reserve Area, Arthur's Reef, Twin Rocks, and Batalang Bato.

1.6. Type(s) of data:

(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.) Image (digital)

1.7. Data collection method(s):

(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)

Instrument: Digital camera Platform: Not applicable

Physical Collection / Fishing Gear: Not applicable

1.8. If data are from a NOAA Observing System of Record, indicate name of system:

1.8.1. If data are from another observing system, please specify:

2. Point of Contact for this Data Management Plan (author or maintainer)

2.1. Name:

Annette M DesRochers

2.2. Title:

Metadata Contact

2.3. Affiliation or facility:

Pacific Islands Fisheries Science Center

2.4. E-mail address:

annette.desrochers@noaa.gov

2.5. Phone number:

(808)725-5461

3. Responsible Party for Data Management

Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

3.1. Name:

Bernardo Vargas-Angel

3.2. Title:

Data Steward

4. Resources

Programs must identify resources within their own budget for managing the data they produce.

4.1. Have resources for management of these data been identified?

Yes

4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):

Unknown

5. Data Lineage and Quality

NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible

(describe or provide URL of description):

Lineage Statement:

Benthic photographs were collected for climate survey sites at pre-defined points along the transect. The photos are collected for the purpose of deriving benthic cover percentages using image analysis software, though, not all photo sets are analyzed. In the case where photographs were collected during both the initial deployment and final recovery missions, typically only the most recent set of photographs are analyzed for benthic cover.

Process Steps:

- Climate sites were selected at five locations on hard bottom reef habitat areas, and a mid-depth (6-18 m) and shallow (0-6 m) site was established at each location. At the survey site, a 10-m transect is run from the reference stake parallel to shore. At the 10-m mark of the transect tape, a second 5-m transect is deployed perpendicular and down-slope. This gives a total of a 15-m transect and forms 2 of the boundary sides of the climate survey site. Bearings of each transect are recorded. Along the 15-m transect tape, two images are taken per meter, for a total of 30 images per site.
- Photos are color-corrected (if necessary) prior to analysis. The data management team also uses a optical validation script to rename photos and enforce several validation checks.
- 5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:
- **5.2. Quality control procedures employed (describe or provide URL of description):**Benthic images and the file structure are quality controlled by CREP personnel before they are migrated and integrated into CREP's master optical directory on the PIFSC network.

6. Data Documentation

The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

- **6.1. Does metadata comply with EDMC Data Documentation directive?** Yes
 - 6.1.1. If metadata are non-existent or non-compliant, please explain:
- 6.2. Name of organization or facility providing metadata hosting:

NMFS Office of Science and Technology

6.2.1. If service is needed for metadata hosting, please indicate:

6.3. URL of metadata folder or data catalog, if known:

https://inport.nmfs.noaa.gov/inport/item/45820

6.4. Process for producing and maintaining metadata

(describe or provide URL of description):

Metadata produced and maintained in accordance with the NMFS Data Documentation Procedural Directive: http://www.nmfs.noaa.gov/op/pds/documents/04/111/04-111-01.pdf

7. Data Access

NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

7.1. Do these data comply with the Data Access directive?

Yes

7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

7.2. Name of organization of facility providing data access:

National Centers for Environmental Information - Silver Spring, Maryland

7.2.1. If data hosting service is needed, please indicate:

7.2.2. URL of data access service, if known:

http://accession.nodc.noaa.gov/0162830

http://accession.nodc.noaa.gov/0162830

http://accession.nodc.noaa.gov/0162830

http://accession.nodc.noaa.gov/0162830

7.3. Data access methods or services offered:

Data can be accessed online via the NOAA National Centers for Environmental Information (NCEI) Ocean Archive.

7.4. Approximate delay between data collection and dissemination:

Unknown

7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

8. Data Preservation and Protection

The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

8.1. Actual or planned long-term data archive location:

(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended) NCEI-MD

- 8.1.1. If World Data Center or Other, specify:
- 8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:
- 8.2. Data storage facility prior to being sent to an archive facility (if any):

Pacific Islands Fisheries Science Center - Honolulu, HI

- **8.3. Approximate delay between data collection and submission to an archive facility:**Unknown
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

NOAA IRC and NOAA Fisheries ITS resources and assets.

9. Additional Line Office or Staff Office Questions

Line and Staff Offices may extend this template by inserting additional questions in this section.